

As used herein, "allogeneic" refers to genetically different members of the same species.

As used herein, "isogeneic" refers to of an identical genetic constitution.

As used herein, "xenogeneic" refers to members of a different species.

5 As used herein, "culturing" refers to propagating or nurturing a cell, collection of cells, tissue, or organ, by incubating for a period of time in an environment and under conditions which support cell viability or propagation. Culturing can include one or more of the steps of expanding and proliferating a cell, collection of cells, tissue, or organ according to the invention.

10 The invention also provides for a pharmaceutical composition comprising the isolated stem cells of the invention admixed with a physiologically compatible carrier.

BRIEF DESCRIPTION OF THE DRAWINGS

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Figures 1A and 1B show dual fluorescence immunocytochemical staining of rat pancreatic islets at embryonic day 16 (Fig. 1A) and at day 60 after birth (Fig. 1B). Immunostaining with an antibody for nestin is shown in white (red in the original, with Cy3 as fluorophore) and with an antibody for insulin is shown in grey (green in the original, with Cy2 as fluorophore).

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Julia Figure 2 shows the result of RT-PCR performed using mRNA obtained from 50 rat islets. Forward and reverse primers are indicated. The single band of 834 bp was sequenced and identified substantially as the sequence for nestin.

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Figure 3 shows nestin-positive cells that have proliferated out from a cultured rat islet.

Figures 4A-4B

6/21/04 *BOB* Figure 4 shows the development of islet like structures in culture.

Figure 5 shows the results of RT-PCR analysis of islet-like structures generated in culture. Expression of NCAM and cytokeratin-19 (CK19) was detected.

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Please replace the paragraph at page 19, line 3, with the following replacement paragraph:

Figures 7A-7C
Figure 7 depicts the nestin amino acid (SEQ ID No: 2) and nucleotide (SEQ ID No:1) sequences.

Please replace the paragraph at pages 22, lines 19 through 28 continuing to page 23, lines 1 through 28 and page 24, lines 1 through 21, with the following replacement paragraph:

—RT-PCR and Southern blot analysis are performed according to the following methods.

Total cellular RNA prepared from rat or human islets is reverse transcribed and amplified by PCR for about 35 cycles depending on the desired degree of amplification, as described previously (Daniel, et al., 1998, *Endocrinology*, 139:3721-3729).

Oligonucleotides used as primers or amplimers for the PCR and as probes for subsequent Southern blot hybridization are:

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|-----------------|--|
| Rat nestin: | Forward, 5'gcggggcggtgcgtgactac3' (SEQ ID NO: 3); Reverse, 5'aggcaagggggaagagaaggatg3' (SEQ ID NO: 4); Hybridization, 5'aagctgaagccgaattccttgggataccagagga3' (SEQ ID NO: 5). |
| Rat keratin 19: | Forward, 5'acagccagtgacttcaagacc3' (SEQ ID NO: 6); Reverse, 5'ctgtgtcagcacgcacgtta3' (SEQ ID NO: 7); Hybridization, 5'tggattccacaccaggcattgaccatgcc3' (SEQ ID NO: 8). |
| Rat NCAM: | Forward, 5'cagcgttgagagagtcctaaat3' (SEQ ID NO: 9); Reverse, 5'ttaactcctgtgggggttgg3' (SEQ ID NO: 10); Hybridization, 5'aaaccagcagcggatctcagtggtgtggaacgatgat3' (SEQ ID NO: 11). |
| Rat IDX-1 | Forward, 5'atcactggagcagggaaat3' (SEQ ID NO: 12) Reverse, 5'gtactacgtttcttatct3' (SEQ ID NO: 13) Hybridization, 5'gcgtggaaaagccagtgagg3' (SEQ ID NO: 14) |
| Human nestin: | Forward, 5'agaggggaattcctggag3'; (SEQ ID NO: 15) Reverse, 5'ctgaggaccaggactctcta3'; (SEQ ID NO: 16) Hybridization, 5'tatgaacgggctggagcagctctgaggaaagt3'. (SEQ ID NO: 17) |
| Human keratin: | Forward, 5'cttttcgcgcgccagcatt3'; (SEQ ID NO: 18) Reverse, 5'gatcttctgtccctcagc3'; (SEQ ID NO: 19) |